

Attorney Docket No.: J6816(C)
Serial No.: 10/697,608
Filed: October 30, 2003
Confirmation No.: 9632

REMARKS

Claims 1, 2 and 7-15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Muller et al. (U.S. Patent 6,248,338) in view of Whistler et al. (U.S. Patent 5,453,281) and further in view of Mausner et al. (U.S. Patent 5,215,759 and further in view of Franklin et al. (U.S. Patent Publication No. 2001/0055574). Applicant traverses this rejection.

Muller et al. was introduced for teaching a skin care composition comprising both glycerin and modified starch (hydroxypropyl di-starch phosphate), and a surfactant.

The Examiner has admitted that "the reference does not teach a non-gelatinized modified starch in the composition". These words of the Examiner paint Muller et al. as merely lacking some feature of applicant's invention. In fact, the reference is much more hostile to the present invention.

Applicant claims a **non-gelatinized** modified starch. Muller et al. is focused upon **pre-gelatinized** modified starches. See the Abstract and column 3 (lines 64-67) bridging to column 4 (line 1). By contrast to the present invention, Muller et al. **teaches away** from the use of the non-gelatinized starch variety. In particular, the reference states that: "It has surprisingly been found that with a cooking starch (i.e., non-gelatinized starch) modified in the same way as a starch to be used according to the invention, the desired advantages regarding rheology, skin feel and emulsion stability are not obtained even if the aqueous phase, following addition of the cooking starch, is heated for 15 minutes for a temperature above the gelatinizing temperature of the starch." (emphasis added). See column 4, lines 1-8. Several series of comparative

Attorney Docket No.: J6816(C)
Serial No.: 10/697,608
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experiments are reported in the reference to demonstrate the inferior characteristic of non-gelatinized modified starches. Note the negative examples referenced as Example 2, 5, 8, 17, 20, 23, 38, 41 and 44. Many of the negative comparative compositions with non-gelatinized starch were identified as being sandy (i.e. poor skin feel).

Based on the foregoing considerations, Muller et al. is more than a defective reference. It specifically warns the skilled chemist against any non-gelatinized modified starch. Secondary references do not rehabilitate this toxic warning.

Whistler et al. is promoted by the Examiner as teaching un-gelatinized starch granules to provide a softer feel to skin. Under the background discussion, Whistler et al. states: "Chemically modified starches such as starch ester or ether derivatives and cross-linked pre-gelatinized starches, are useful as disintegrants but not as binders." See column 2, lines 22-24. The reference then proceeds to state that there is a need for a starch suitable for use as a **binder** in tabletting compositions. See column 2, lines 31-32. From these statements it appears that Whistler has ruled out chemically modified starches as within the ambit of their discoveries. By contrast, the present invention is directed only at chemically modified starches. Evidently we have another teaching away in this reference from materials in applicant's claims.

Applicant does notice contradictory statements further in the referenced text. Under column 4 (lines 1-6), Whistler et al. states that his granular starch must be maintained in non-gelatinized granular form. Therein also is stated that the granular starch can be chemically modified or derivatized with one or more of the art recognized

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starch ether forming or ester forming reagents. Nonetheless, applicant's claimed C₂-C₅ hydroxyalkyl starch or C₂-C₁₈ acyl starch are not mentioned by this reference.

A further problematical aspect of Whistler et al. is that it is directed to tablets and powders. See column 1, lines 5-15. By contrast, the present invention is neither a powder nor a tablet. Claim 1 includes a very substantial amount of liquid glycerin (no less than about 10%). This is a mobile composition.

Mausner was cited for teaching a cosmetic composition with materials covered by the present claims. Glycerin was found to be present at 20-40% of the 0.5% to about 3% of hydrophilic microcapsule. This calculates to a maximum of **1.2%** by weight of the Mausner composition. By contrast, applicant's claims require glycerin at a megadose of at least about 10% of the cosmetic composition.

Moisturization of skin is vastly improved by incorporation of glycerin at relatively high concentration levels, particularly 10% or higher. Unfortunately, these high levels of glycerin disadvantageously impart negative skinfeel aesthetics to applied areas of the skin. High glycerin formulas also present a challenge for thickening and emulsifying the formulation.

Applicant has achieved compositions with significant glycerin content through formulation with a modified starch in combination with a specified crystalline gel structurant. The structurant comprises a surfactant and co-surfactant. The surfactant is a polyethoxy or polypropoxy alcohol ester of a fatty acid. The co-surfactant is a

Attorney Docket No.: J6816(C)
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mixture of three materials. These are a C₁₀-C₂₂ fatty alcohol, a glyceryl ester of C₁₀-C₂₂ fatty acid, and stearic acid.

Albeit Mausner mentions glycerin, the Examiner implicitly admits the amount maxes at 1.2% of the overall composition. This maximum amount is insufficient for effective moisturization. The present claims specify the need for at least about 10% glycerin. And such high levels of glycerin introduce the problems which the present invention seeks to solve.

Further, the Examiner has admitted that Mausner does not teach the claimed surfactant and co-surfactant ratio of about 15:85 to 60:40. Nonetheless this was considered an obvious range for a cosmetic composition that comprises glycerin and non-gelatinized modified starch. Applicant considers this view not well-taken.

In Mausner the glycerin content maxes at 1.2% and there is no reference to starch whatsoever. It is clear that Mausner does not provide the claimed glycerin to modified starch weight ratio of about 100:1 to about 2:1. Applicant has provided a comparative experiment under Example 1 bridging pages 15-17 of the specification. There it is shown that silky skin feel in the presence of a high level of glycerol is found wherein the surfactant to co-surfactant ratio is 20:80. The operative range by extrapolation lies between about 15:85 and 60:40. Absent a consideration of a high glycerin level and the presence of non-gelatinized modified starch, the surfactant/co-surfactant ratio does not assume a critical importance.

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SUMMARY

A combination of Muller et al. in view of Whistler et al., and in further view of Mausner et al. and Franklin et al. would not render the instant invention obvious. Muller et al. as the primary reference is toxically deficient. Applicant's claim 1 requires a **non-gelatinized** modified starch. Muller et al. emphasizes that "a cooking starch (i.e. non-gelatinized starch) modified in the same way as a starch to be used according to the invention, the desired advantages regarding rheology, skin feel and emulsion stability are **not** obtained ---". (Emphasis added). See column 4, lines 1-8. Several series of comparative experiments in this reference demonstrate the inferior characteristic of non-gelatinized modified starches. See the negative examples referenced as Examples 2, 5, 8, 17, 20, 23, 38, 41 and 44. Consequent to this teaching, the skilled person would studiously avoid **non-gelatinized** starches.

In Whistler et al., this same skilled chemist would see both a negative and positive reference with respect to non-gelatinization. Compare column 2 (lines 22-24 and 30-32) versus column 3 (lines 66-67) bridging to column 4 (lines 1-6). With the negative teaching of Muller et al. and the ambivalence of Whistler et al., the skilled chemist would at best consider a non-gelatinized starch only as a binder in tableting compositions and dusting powders. By contrast, the claimed compositions are neither tablets nor powders. Applicant's claims require a minimum of 10% glycerin, a decidedly liquid major component.

Attorney Docket No.: J6816(C)
Serial No.: 10/697,608
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Only Muller et al. mentions the presently claimed C₂-C₅ hydroxyethyl starch and C₂-C₁₈ acyl starch. These starches are not particularized in Whistler et al. Armed with the knowledge from Muller that the non-gelatinized hydroxyalkyl and acyl modified starches have insufficient skin feel, any resurrection by Whistler et al. would fall short of a rehabilitation.

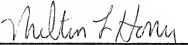
The aforementioned fundamental distinctions would not be remedied by the secondary references. Indeed, those secondary references have their own further infirmities. Mausner reveals a miniscule 1.2% glycerol (glycerin) max concentration. But glycerin at the claimed high levels requires the special surfactant/co-surfactant ratios. Mausner et al. would not provide a template for suggesting manipulation of the surfactant/co-surfactant constituents or their concentrations to achieve an appropriate silky skin feel in a high glycerin formulation. Franklin et al. was not cited for any teachings that would remedy the aforementioned deficiencies.

It is evident that the primary reference does not merely lack certain claim elements, but it teaches away from the essential characteristics of the claimed invention. The secondary art of Whistler et al., Mausner and Franklin et al. fail to address the teaching away found in Muller et al. Indeed, the secondary references even for the purposes of their citation are less than robust teachings to those skilled in the art to formulate the presently claimed invention.

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In view of the foregoing comments, applicant requests the Examiner to reconsider the rejection and now allow the claims.

Respectfully submitted,


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